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LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			THAI, HANH B	
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DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/805,626

Applicant(s)

LI ET AL.

Examiner

Hanh B Thai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Appeal Brief filed February 17, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

In view of the appeal brief filed on February 17, 2004, PROSECUTION IS HEREBY REOPENED. A rebuttal to the Reply Brief is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Response to Arguments

1. Examiner's response to applicant's argument a: Marchisio DOES anticipate claim 40.

Applicant argues on page 6 that "Marchisio does not anticipate claim 40" and pages 7-8 "not only are the features of Marchisio not shown in as complete detail as is contained in claim 40, but neither are the features of the reference arranged as required by claim 40..., claim 40 recites a system comprising:

A crawler module coupled to access a media content source....

A feature extraction module coupled to extract one of more text features...

A media content indexing module coupled to generate a text feature..."

In response, Marchisio does not disclose "crawler module". However, referring to col. 8, line 64 to col.9, line 6 and col.18, line 58 to col. 19, line 13, where the reference teaches about

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the performance document web search. It is clear that the claimed provision is inherent.

Nonetheless, even if the limitation of the above were not inherent, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to include such a crawler to search and receive input documents (27, Fig.2, Marchisio) and clearly, web documents could be any media content source or electronic text from the web (col.19, lines 10-13, Marchisio) as the most commonly use of the crawler.

Furthermore, Marchisio the feature extraction module (21, Fig.2) to extract the input document includes the media content piece, and the indexing module (20, Fig.2) is being coupled to generate a query vector "text feature vector" (see col. 5, lines 8-14, col. 6, lines 35-38, Marchisio) based on these extracted text features.

2. Examiner's response to applicant's arguments b-m:

Applicant's arguments regarding claims 1-39, 41-54 are moot in new ground of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 40 is rejected under 35 U.S.C. 102(e) as being anticipated by Marchisio (U. S. Patent no. 6,510,406).

Regarding claim 40, Marchisio discloses a system comprising:

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- a crawler module coupled to access a media content source and collect a plurality of media content pieces and associated text from the media content source (see col. 8, line 64 to col.9, line 6 and col.18, line 58 to col. 19, line 13, Marchisio). Please note that Marchisio does not disclose “crawler module”. However, referring to col. 8, line 64 to col.9, line 6 and col.18, line 58 to col. 19, line 13, where the reference teaches about the performance web search. It is clear that the claimed provision is inherent. Nonetheless, to expedite prosecution, even if the limitation of the above were not inherent, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to include such a crawler to search and receive input documents (27, Fig.2, Marchisio) or electronic text from the web (col.19, lines 10-13, Marchisio) as the most commonly use of the crawler.
- a feature extraction module (21, Fig2) coupled to extract one or more text features from one of the media content pieces (see col. 8, lines 46-49, Marchisio); and
- a media content indexing module (20, Fig.2) coupled to generate a text feature vector (see col. 5, lines 8-14, col. 6, lines 35-38, Marchisio), based on the extracted one or more text features, corresponding to the one media content piece (see col.8, lines 50-56, Marchisio).

Claims 10-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Hoffert et al.

(U. S. Patent no. 6,282,549)

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Regarding claims 10 and 26, Hoffert discloses a method comprising:

- identifying a media content source (see col. 3, lines 14-21, Hoffert).
- Hoffert discloses the web crawler to search and index for media files and find media content located at the web site of interest and associated with the references of the media files (see col. 3, lines 28-54 and col. 4, lines 18-20 and 45-47, Hoffert). This reference corresponds to the “associated text” from the content source. These searching and indexing reads on “collecting one or more pieces of media content and associated text from the media content source”;
- extracting, for a piece of media content, one or more text features from the associated text (see col.18, lines 40-45 and col.21, lines 17-22, Hoffert). The “useful information” or “meaningful information” corresponds to the “text features” that is extracted from the data, according to col. 7, lines 48-67 of Hoffert, this data is “the associated text”; and
- making the one or more text features available for searching (see col.18, lines 40-45 and col.21, lines 17-22, Hoffert).

Regarding claim 11, Hoffert further disclose generating one or more text feature vectors from the extracted one or more text features (see col. 21, lines 20-22, Hoffert); and wherein the making comprises making the one or more text feature vectors available for searching (see col.18, lines 40-45 and col. 21, lines 17-22, Hoffert).

Regarding claim 12, Hoffert teaches the level of content attributes to be meaningful which corresponds to “low-level feature” (col. 21, lines 14-15); and making the one or more low-level features available for searching (see col. 18, lines 40-45, Hoffert).

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Regarding claim 13, Hoffert further disclose a method of collected piece of media content: classifying the image as meaningful or not meaningful; and wherein the extracting comprises extracting the one or more text features for the piece of media content only if the piece of media content is classified as meaningful (see col. 18, lines 40-45 and col. 21, lines 14-26, Hoffert).

Regarding claim 14, Hoffert further disclose a plurality of web pages, each web page including a plurality of pieces of media content and text associated with one or more of the plurality of pieces of media content (col. 4, line 8 and lines 55-57, Hoffert).

Regarding claim 15, Hoffert combination further disclose a filename and the one or more text features comprises one or more words in the filename (see col. 6, line 22, Hoffert).

Regarding claim 16, Hoffert combination further discloses a uniform resource locator (URL) and the one or more text features comprise one or more words in the URL (see col. 6, lines 45-67, Hoffert).

Regarding claim 17, Hoffert combination further disclose that the associated text for a piece of media content comprises alternate text that can be displayed in place of the media content, and the one or more text features comprises one or more words of the alternate text (see col. 5, lines 30-34, Hoffert).

Regarding claim 18, Hoffert combination further disclose the associated text for a piece of media content comprises text surrounding the piece of media content on a web page, and the one or more text features comprises one or more words of the text surrounding the piece of media content (see col. 5, lines 62 to col. 6, lines 9, Hoffert).

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Regarding claim 19, Hoffert combination further disclose the associated text for a piece of media content comprises a title of a web page that includes the piece of media content, and the one or more text features comprises one or more words in the title (see col. 6, lines 19-22, Hoffert).

Regarding claim 20, Hoffert combination further disclose the associated text for a piece of media content comprises a link on a web page that includes the piece of media content, and the one or more text features comprises one or more words in the link (see col. 6, lines 15-21, Hoffert).

Regarding claim 21, Hoffert combination further disclose the associated text for a piece of media content comprises anchor text corresponding to the piece of media content, and the one or more text features comprises one or more words in the anchor text (see col. 7, lines 46-61, Hoffert).

Regarding claim 22, Hoffert combination further disclose the associated text for a piece of media content comprises an image annotation corresponding to the piece of media content, and the one or more text features comprises one or more words in the image annotation (see col. 7, lines 45-51, Hoffert).

Regarding claim 23, Hoffert combination further discloses that the piece of media content comprises an image (see 101, Fig.1, Hoffert).

Regarding claim 24, Hoffert combination further discloses the piece of media content comprises a portion of audio content (see col. 8, lines 1-53 and 101, Fig.1, Hoffert).

Regarding claim 25, Hoffert combination further discloses the piece of media content comprises a portion of multimedia content (see col. 8, lines 1-53 and abstract of Hoffert).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 27-30, 32, 34-35 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marchisio (U. S. Patent no. 6,510,406) in view of Diamond (U. S. Patent no. 6,269,368).

Regarding claim 1, Marchisio discloses one or more computer-readable media having stored thereon a plurality of instructions that, when executed by one or more processors of a computer, causes the one or more processors to perform the following acts:

- receiving search criteria (see col. 5, lines 8-11 and col. 7, lines 27-34, Marchisio);
- generating a query vector based on text features of the search criteria (see col. 5, lines 11-17 and col. 7, lines 35-39 and step 17, Fig. 1, Marchisio);
- identifying media content pieces (see col. 19, lines 10-13 and Fig. 12, Marchisio).

Please note that the “digitized speech” corresponds to “media content”;

- modifying the query vector based on the user feedback (see col. 7, lines 55-65 and col. 16, lines 52-56, Marchisio);
- modifying one or more of the text feature vectors (see feature 27, Fig. 3 and col. 14, lines 25-31, Marchisio).
- identifying new media content pieces (see col. 7, lines 30-34; 27, Fig. 3).

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Marchisio, however, does not explicitly disclose “comparing the query vector to text feature vectors” and “receiving user feedback regarding the relevancy of the identified media content pieces”. Diamond, on the other hand, discloses an information retrieval using dynamic evidence combination system including comparing the query vector to text feature vectors and receiving user feedback (see col.6, line 65 to col. 7, line 5 and lines 9-11; col. 18, line 50 to col. 19, line3, Diamond). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Marchsio to include the claimed features as taught by Diamond. The motivation of doing so would have been to obtain the desire of information retrieval technique that capture both the preciseness and richness of meaning in queries and documents (see col. 2, lines 3-6, Diamond).

Regarding claim 2, Marchisio/Diamond combination further discloses generating another query vector based on one or more low-level features of the search criteria (see col. 17, lines 8-21, Marchisio); and wherein the identifying comprises, comparing the query vector to text feature vectors associated with the plurality of media content pieces to generate first results, comparing the other query vector to other low-level feature vectors associated with the plurality of media content pieces to generate second results, and combining, for one of the plurality of media content pieces, the first and second results corresponding to the one media content piece (see col. 17, lines 47-53 and Fig. 10, Marchisio).

Regarding claim 3, Marchisio/Diamond combination further discloses the altering, based on the user feedback, a weighting of the results used in the combining (see col. 6, line 67 to col. 7, line 8 and col. 10, lines 30-39, Diamond).

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Regarding claim 4, Marchisio/Diamond combination further discloses the step of determining and weighting the result corresponding to the media content piece (see col. 17, lines 54-66, Marchisio).

Regarding claim 5, Marchisio/Diamond combination further discloses the step of altering a weighting of one or more elements in the feature vector based on the user feedback (see col. 19, lines 10-19, Diamond).

Regarding claim 6, Marchisio/Diamond combination further discloses the search criteria comprise one or more words (see 5, Fig.1, Marchisio).

Regarding claims 27-28 and 39, Marchisio discloses a method comprising:

- receiving search criteria (see col. 5, lines 8-11 and col. 7, lines 27-34, Marchisio);
- generating a query vector based on the search criteria (see col. 5, lines 11-17 and col.7, lines 35-39, Marchisio);
- media content and having been generated based on text associated with the piece to of media content (see col. 7, lines 30-34; col. 8, lines 7-10; col. 18, lines 54-61; col.19, lines 10-13 and Fig. 12, Marchisio). Please note that the “digitized speech” corresponds to “media content”; and
- determining, based at least in part on a result of the comparing, whether to render the piece of media content to a user (see col. 8, lines 33-36, Marchisio).

Marchisio, however, does not explicitly disclose “comparing the query vector to a feature vector”. Diamond, on the other hand, discloses an information retrieval using dynamic evidence combination system including comparing the query vector to the set of vectors of all documents which corresponds to text feature vectors and receiving user feedback

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(see col. 6, line 65 to col. 7, line 5 and lines 9-11; col. 18, line 50 to col. 19, line 3, Diamond). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Marchsio to include the claimed features as taught by Diamond. The motivation of doing so would have been to obtain the desire of information retrieval technique that capture both the preciseness and richness of meaning in queries and documents (see col. 2, lines 3-6, Diamond).

Regarding claim 29, Marchisio/Diamond combination further discloses generating another query vector based on one or more low-level features of the search criteria (see col. 17, lines 8-21, Marchisio); and wherein the identifying comprises, comparing the query vector to text feature vectors associated with the plurality of media content pieces to generate first results, comparing the other query vector to other low-level feature vectors associated with the plurality of media content pieces to generate second results, and combining, for one of the plurality of media content pieces, the first and second results corresponding to the one media content piece (see col. 17, lines 47-53 and Fig. 10, Marchisio).

Regarding claim 30, Marchisio/Diamond combination further discloses the step of accessing user feedback regarding the relevancy of one or more pieces of media content rendered to the user; and altering, based on the user feedback, a weighting of the results used in the combining (see col. 18, lines 15-28 and line 66 to 19, line 3, Diamond).

Regarding claim 32, Marchisio/Diamond combination further discloses the step of modifying the feature vector corresponding to the piece of media content based on the user feedback (see col. 18, lines 50-52, Diamond).

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Regarding claim 34, Marchisio/Hoffert combination further discloses the step of altering a weighting of one or more elements in the feature vector based on the user feedback (see col. 19, lines 10-16, Diamond).

Regarding claim 35, Marchisio/Hoffert combination further discloses the search criteria comprise one or more words (see 5, Fig.1, Marchisio).

Claims 7-9, 31, 33 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marchisio (U. S. Patent no. 6,510,406) in view of Diamond (U. S. Patent no. 6,269,368) and further view of Hoffert et al. (U. S. Patent no. 6,282,549).

Regarding claim 7, Marchisio/Diamond disclose all of the claimed limitation as discussed above except that the piece of media content comprises an image. Hoffert, on the other hand, discloses the web crawler to search and locate media files including images (see 101, Fig.1 and col. 3, lines 28-54, Hoffert). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Marchisio to include the crawler module couple to access media content as evidenced by Hoffert. The motivation of doing so would have been to allow user to search media content which Marchisio would not be able to (see col. 2, lines 24-27, Hoffert).

Regarding claim 8, Marchisio/Diamond/Hoffert combination further discloses the piece of media content comprises a portion of audio content (see col. 8, lines 1-53 and 101, Fig.1, Hoffert).

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Regarding claim 9, Marchisio/Diamond/Hoffert combination further discloses the piece of media content comprises a portion of multimedia content (see col. 8, lines 1-53 and abstract of Hoffert).

Regarding claim 31, Marchisio/Hoffert combination discloses all of the claimed limitation as discussed above, except the distance between the other query vectors. Hoffert, on the other hand, discloses the web search including the distance from media reference to matching keyword (see col. 5, lines 10-20, Hoffert). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Marchisio to include the crawler module couple to access media content as evidenced by Hoffert. The motivation of doing so would have been to allow user to search media content which Marchisio would not be able to (see col. 2, lines 24-27, Hoffert).

Regarding claim 33, Marchisio/Diamond/Hoffert combination further disclose the user space vector corresponding to a particular piece of media content to modify the feature vector corresponding to the particular piece of media content (see Fig.3A, Hoffert).

Regarding claim 36, Marchisio/Diamond/Hoffert combination further discloses that the piece of media content comprises an image (see 101, Fig.1, Hoffert).

Regarding claim 37, Marchisio/Diamond/Hoffert combination further discloses the piece of media content comprises a portion of audio content (see col. 8, lines 1-53 and 101, Fig.1, Hoffert).

Regarding claim 38, Marchisio/Diamond/Hoffert combination further discloses the piece of media content comprises a portion of multimedia content (see col. 8, lines 1-53 and abstract of Hoffert).

Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marchisio (U. S. Patent no. 6,510,406) in view of Hoffert et al. (U. S. Patent no. 6,282,549).

Regarding claim 40, Marchisio discloses a system comprising:

- a feature extraction module (21, Fig2) coupled to extract one or more text features from one of the media content pieces (see col. 8, lines 46-49, Marchisio); and
- a content indexing module (20, Fig.2) coupled to generate a text feature vector (see col. 5, lines 8-14, col. 6, lines 35-38, Marchisio), based on the extracted one or more text features, corresponding to the one media content piece (see col.8, lines 50-56, Marchisio).

Marchisio, however, does not explicitly disclose “a crawler module coupled to access a media content source and collect a plurality of media content pieces and associated text from the media content source.” Hoffert, on the other hand, discloses the web crawler to search, locate media files and find media content located at the web site of interest and associated with the references of the media files (see col. 3, lines 28-54 and col. 4, lines 18-20 and 45-47, Hoffert). This reference corresponds to the “associated text” from the content source. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Marchisio to include the crawler module couple to access media content as evidenced by Hoffert. The motivation of doing so would have been to allow user to search media content which Marchisio would not be able to (see col. 2, lines 24-27, Hoffert).

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Claims 41-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (U. S. Patent no. 6,269,368) in view of Hoffert et al. (U. S. Patent no. 6,282,549).

Regarding claim 41, Diamond discloses a system comprising:

- a query generator (50, Fig.1, Diamond) to generate a query vector based on received search criteria (see col. 6, lines 25-33, Diamond). Please note that “representation of query” corresponds to the “query vector”; and
- a matching module (55, Fig.1, Diamond), to receive the query vector and compare the query vector to a plurality of feature vectors (see col. 6, lines 37-42 and col. 18, lines 62-66, Diamond). Please note that “representation of document” corresponds to the “feature vector”.

Diamond, however, does not disclose “a plurality of pieces of media content”. Hoffert, on the other hand, discloses the web crawler to search and locate multimedia files (see abstract, element 101, Fig.1 and col. 3, lines 28-54, Hoffert). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Diamond to include the plurality of media content pieces as evidenced by Hoffert. The motivation of doing so would have been to allow user to search media content which Diamond would not be able to (see col. 2, lines 24-27, Hoffert).

Regarding claims 42 and 47, Diamond discloses a method comprising:

- receiving search criteria (see col. 4, lines 34-39, Diamond);
- identifying, based at least in part on the search criteria, a piece of media content to be rendered (see col. 7, lines 30-34);

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- receiving user feedback regarding the relevancy of data content (see col. 18, lines 34-55, Diamond);
- weighting for another piece of media content (see col. 18, lines 15-28, Diamond), based on the user feedback, both a result of comparing the high-level query vector to a high-level feature vector and a result of comparing the low-level query vector to a low-level feature vector (see col. 13, lines 1-13 and col. 18, line 50 to col. 19, line 3, Diamond).
- combining the weighted result to determine whether to identify the other piece of media content for rendering (see col. 13, line 63 to col. 14, line 52, Diamond).

Diamond, however, does not explicitly disclose "piece of media content". Hoffert, on the other hand, discloses a method of searching and indexing of media content (see col. 2, line 62 to col. 3, line 12, Hoffert). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Diamond to include the media content evidenced by Hoffert. The motivation of doing so would have been to allow user to search media content which Diamond would not be able to (see col. 2, lines 24-27, Hoffert).

Regarding claim 43, Diamond /Hoffert combination further discloses the multiple levels' vector search correspond to the low and high feature vector. Therefore, it is obvious to generate a new high-level query vector and new low-level query vector based on the search criteria (see col. 13, lines 1-13, Diamond).

Regarding claim 44, Diamond /Hoffert combination further discloses generating a user space vector corresponding to the piece of media content and using the user space vector

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corresponding to the piece of media content to modify the high-level feature vector (see col. 13, lines 2-5, Diamond).

Regarding claim 45, Diamond /Hoffert combination further discloses altering a weighting of one or more elements in the feature vector based on the user feedback; and the similar document to a list of documents that are relevant to a paragraph selection in the page (see col. 18, line 50 to col. 19, line 3, Diamond)

Regarding claim 46, Diamond /Hoffert combination further discloses the feature vector of the other piece of media content is a text feature vector (see col. 24, lines 15-16, Hoffert).

Regarding claims 48 and 50, Diamond discloses a method comprising:

- receiving user feedback regarding the relevancy of documents (see col. 18, lines 50-53, Diamond); and
- modifying a feature vector (see col. 19, lines 39-46, Diamond). The “representation of document” corresponds to “feature vector”.

Diamond, however, does not disclose the step of marking the modified feature vector available for searching. Hoffert, on the other hand, discloses a searching and indexing method that makes the useful information from the data for searching (see col.18, lines 40-45 and col. 21, lines 17-22, Hoffert). This useful information from the data corresponds to the text features. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Diamond to include the claimed feature as evidenced by Hoffert. The motivation of doing so would have been to allow user to search media content which Diamond would not be able to (see col. 2, lines 24-27, Hoffert).

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Regarding claim 49, Diamond/Hoffert combination further discloses that the feature vector is a text feature vector (see col. 21, lines 18-22, Hoffert).

Claims 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diamond (U. S. Patent no. 6,269,368) in view of Hoffert et al. (U. S. Patent no. 6,282,549) and further in view of Ma et al. (U. S. Patent no. 6,347,313).

Regarding claim 51, Diamond discloses one or more computer-readable media having stored thereon a plurality of instructions that, when executed by one or more processors of a computer, causes the one or more processors to perform acts including:

- comparing a query vector corresponding to search criteria of the user and a feature vector (see col. 6, lines 37-42 and col. 18, lines 62-66, Diamond). Please note that “representation of query and document” corresponds to the “query and feature vector”;
- receiving user feedback regarding the relevancy of data content (see col. 18, lines 34-55, Diamond);
- modifying the query vector based on the received user feedback (see col. 19, lines 39-46, Diamond).

Hoffert, on the other hand, discloses the method of searching and indexing media content including media content pieces (see 101, Fig. 1 and col. 3, lines 28-54, Hoffert). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Diamond to include media content as evidenced by Hoffert. The motivation of doing so

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would have been to allow user to search media content which Diamond would not be able to (see col. 2, lines 24-27, Hoffert).

Diamond and Hoffert combination does not disclose “the received user feedback in an off line”. Ma, on the other hand, discloses the user feedback processing that is performed off-line (see col.9, lines 21-41, Ma). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the user feedback in an off-line as taught by Ma. The motivation of doing so would have been to enable effective database searching based on the level semantic features (see col. 2, lines 18-20, Ma).

Regarding claims 52 and 53, Diamond/Hoffert/Ma combination discloses all of the claimed subject matter. However, Diamond’s “values to the hidden layer” (col. 17, line 29, Diamond) reads on the claimed “confidence” value. Because the new query vector D is adjusted based on the relevancy value (in the same manner as is the claimed vector D adjusted on the confidence value), the Examiner takes the position that the claimed relationship (see formula claim 52) is in fact inherent in Marchisio. And for the formula in the claim 53 is basically a calculating the different between the value 1 and adjusted vector.

Regarding claim 54, Diamond/Hoffert/Ma combination discloses that the pieces of media content comprise the audio content, visual content, and multimedia content (see Fig. 1 and Abstract of Hoffert).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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1. Caudill et al. (US 6,766,316) disclose a method and system of ranking and clustering for document indexing and retrieval.

2. Lin et al. (US 6,675,159) disclose a concept-based search and retrieval system.

3. Gillis (US 6,523,026) discloses a method for retrieving semantically distant analogies.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh B Thai whose telephone number is 571-272-4029. The examiner can normally be reached on 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Hanh B Thai
Examiner
Art Unit 2161

November 24, 2004


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